MONTHLY WEATHER REVIEW,

NOVEMBER, 1878.

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

INTRODUCTION.

In compiling the present REVIEW the following data, received up to December 14th, have been made use of, viz: the regular tri-daily weather charts, containing the data of simultaneous observations taken at 119 Signal Service stations and 11 Canadian stations, as telegraphed to this office; monthly journals and means, 117 and 141 respectively, from the former, and monthly means from 13 of the latter; reports from 22 special Sunset stations; 228 monthly registers from Voluntary Observers; 40 monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; monthly reports from Voluntary Observers and local Weather Services of the States of Iowa and Missouri; reliable newspaper extracts; special reports.

BAROMETRIC PRESSURE.

Upon chart No. II is shown by the isobaric lines the general distribution of the atmospheric pressure, reduced to sea-level, for the month. Compared with the means for October of previous years, the pressure for the present month is slightly above normal west of the Rocky Mountains, and slightly below east of that region, the greatest deficiency is over the New England States.

The Local Barometric Ranges for the month, as reduced to sea-level, have been largest over New England and the Middle States, from which region they have gradually decreased south and westward to the Gulf and Pacific coasts. Taken by districts, they vary as follows:—New England, 1.60 inches at Boston and Springfield to 1.40 at Burlington and 1.18 on the summit of Mt. Washington; Middle States, 1.60 at Sandy Hook to 1.36 at Lynchburg; South Atlantic States, 1.08 at Cape Lookout to 0.69 at Jacksonville and 0.67 at Tybee Island; Gulf States, 0.75 at Montgomery to 0.61 at Indianola, and 0.39 at Key West; Ohio valley and Tennesse, 1.20 at Pittsburgh to 0.87 at Cairo; Lake region, 1.41 at Oswego to 0.84 at Duluth; Upper Mississippi valley and Minnesota, 0.97 at Des Moines to 0.83 at St. Paul, and 0.90 at Pembina; Missouri valley, 1.06 at Yankton to 0.80 at Bismarck; eastern slope of Rocky Mountains and interior of Texas, 0.96 at North Platte to 0.63 at Deadwood, Dak., and 0.47 at Fort Davis, Tex.; Rocky Mountain stations, 0.63 at Virginia City, Mont., to 0.45 at Cheyenne; 0.58 on summit of Pike's Peak; Western Plateau, 0.84 at Boise City to 0.70 at Pioche; California, 0.75 at Red Bluff to 0.57 at San Diego.

Areas of High Barometer.—Nine of these have been well marked areas, and a brief description of each is given below. Three of them, Nos. II., III. and V., first appeared over the Northwest; four, Nos. IV., VII., VIII. and IX., over Oregon and Washington Territory, and one, No. VI., over California. Their paths were similar, those appearing in the Northwest moving eastward over the Lake region, Ohio valley and Atlantic States, while those first appearing on the Pacific coast moved southeastward over the Rocky Mountains and Southwest, and thence spread over the Gulf States.

No. I—is a continuation of high area No. VI of the October REVIEW, and was central over the Southern States during the 1st and 2nd, where it was accompanied by clear, frosty weather; on the morning of the 1st the minimum temperatures of the month were experienced at stations from Illinois and Ohio to the South Atlantic coast, and ranged from 24° at Columbus, Ohio, to 41° at Jacksonville, Florida.

No. II—advanced southward over Montana and Wyoming on the 1st in rear of low area No. II, then central north of the Lake region. 2nd, a general rise in pressure occurred over the entire country, and during the 3rd the pressure was everywhere above the normal, except on the immediate Pacific coast, in advance of low area No. V. Rising temperature prevailed, except from the Lower Lakes to the Atlantic coast. 4th, pressure above normal east of the Mississippi, with maximum pressure over Lake region; barometer falling in the Northwest, in advance of low area No. IV, which was subsidiary to area No. V on the Pacific coast. 5th, passed southeastward off the South Atlantic coast.